



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/529,390	03/28/2005	Michael Porat	05035	6737

23338 7590 09/24/2009
DENNISON, SCHULTZ & MACDONALD
1727 KING STREET
SUITE 105
ALEXANDRIA, VA 22314

EXAMINER

MATTER, KRISTEN CLARETTE

ART UNIT	PAPER NUMBER
----------	--------------

3771

MAIL DATE	DELIVERY MODE
-----------	---------------

09/24/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/529,390	Applicant(s) PORAT, MICHAEL	
	Examiner KRISTEN C. MATTER	Art Unit 3771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 August 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,6,8-13,15,16,18-20,23 and 27-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,6,8-13,15,16,18-20,23 and 27-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 May 2008 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 3771

DETAILED ACTION

This Action is in response to the amendment filed on 8/19/2009. Claim 1 has been amended, claim 29 has been added, and no claims have been cancelled. Currently, claims 1, 2, 6, 8-13, 15, 16, 18-20, 23, and 27-29 are pending in the instant application.

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the single air space must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 6, 8, 12, 16, 18-20, 23, 27, and 28 are rejected under 35 U.S.C. 103(a) as obvious over Richardson (US 6,134,716) in view of Roy (US 2004/0261161).

Regarding claims 1, 6, 12, 16, and 27, Richardson discloses a mask that enables one to breathe filtered air comprising a hood (12) that includes a single bag of transparent film material impermeable to gases (see column 5, lines 35-40), a filter assembly (18) connected to the bag (column 3, lines 1-20) and exhalation valve (20) disposed in the wall of the bag and worn in the area of a user's nose and/or mouth (see Figure 1), and a separate sealing means (60, 62) to seal around the neck and create a single air space between the user and the bag wall (see Figure 1; there is no additional structure that would create a separate plenum space). To the extent, if any, that Richardson does not clearly mention the material is impermeable to gases, Examiner points to the fact that the hood has valves and filters and to column 4, lines 48-49, in which Richardson discloses the strap is for preventing contaminated air from entering the interior of the hood. This seems to clearly indicate that the bag is made of an impermeable film material, but regardless, it is obvious to one of skill in the art to make a hood for protecting against air toxins from a material that is impermeable to gases. The flexible nature of the hood inherently makes the hood foldable to a pocket size.

Art Unit: 3771

Richardson is silent as to the sealing means being a circumferential elastic sealing means, not connected to the bag. However, Roy, in a protective suit in which air/water is prevented from entering the suit, discloses that drawstrings and elastic bands are equivalents/interchangeable (paragraph 16). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have replaced the drawstring of Richardson with an elastic band as taught by Roy because these two components are well known and commonly used as equivalents. In addition, it appears as though the device of Richardson would perform equally well with a circumferential elastic band. Note the term "band" implies a ring of material and therefore is considered to be circumferential. And since the bands are used on humans, it would be obvious to provide a snug comfortable fit that would not choke someone while still providing a good seal. Furthermore, although Richardson discloses a channel through which the sealing means can be threaded, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have placed the sealing means of the modified device outside of the channel (or to remove it altogether) in order to allow a user to select a desired position for the sealing means, to more easily don and doff the device, or as a matter of simple design consideration since similar masks without channels for drawstrings are well known and commonly used in the art (see for example cited references van der Smits et al. and Lund et al.), and the mask of Richardson would work equally well with or without the channel for the sealing means.

Regarding claim 8, "Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process

Art Unit: 3771

claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.” *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985)(citations omitted). In this case, Richardson discloses the filter member as sealed to the inner surface of the hood (column 3, lines 8-11) but does not specifically state that it is heat sealed (although Richardson does disclose the bag itself is heat-sealed in column 4, line 16). It is well known to persons of ordinary skill in the art to heat seal plastic materials as an effective means for creating air-tight barriers and therefore would have been obvious to one of ordinary skill in the art to heat seal the filter assembly onto the bag.

Regarding claim 19, Richardson does not disclose 2 drawstrings (thus, the modified device does not include 2 elastic bands). However, it is well known to those of ordinary skill in the art that drawstrings and elastic bands are replaceable and therefore it would have been an obvious design consideration to one of ordinary skill in the art at the time the invention was made to have provided a second (i.e., spare) elastic sealing means in the modified mask of Richardson in order to replace the sealing means should it break, for example (i.e., there is no limitation in the claims that the two sealing means must be used at the same time even, just that two have to exist).

Regarding claim 23, Richardson does not specifically state that the hood is turned inside out after use, however, the flexible nature of the hood material inherently allows the hood to be turned inside out after removal from the head.

Regarding claim 28, the modified device disclosed by Richardson and Roy has all of the structural limitations needed to perform the recited method steps, including unfolding the hood and stretching an elastic sealing means over the hood and around the neck, and is fully capable of

Art Unit: 3771

doing so. It would have been obvious to one of ordinary skill in the art at the time the invention was made, upon seeing the modified Richardson device, to perform the recited method steps of the instant claim 28.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Richardson and Roy as applied to claims 1, 6, 8, 12, 16, 18-20, 23, 27, and 28 above, and further in view of McGuinness (H1316). Richardson does not disclose the hood as being made of a laminate of more than one plastic material. However, McGuinness discloses a similar protective hood formed from plastic laminates of more than one material (see column 2, lines 43-52). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have made the hood of Richardson from a plastic laminate as disclosed by McGuinness in order to more effectively protect the user from contaminants for extended periods of time. In addition, it appears as though the device disclosed by Richardson would perform equally well with a hood made of a plastic laminate as opposed to a single layer of plastic film.

Claims 9-11 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Richardson and Roy as applied to claims 1, 6, 8, 12, 16, 18-20, 23, 27, and 28 above, and further in view of Wen (US 6,681,765).

Regarding claims 9 and 11, Richardson discloses a multilayer filter with active charcoal but is silent as to an antiseptic. Wen discloses, in a respiration mask, a multilayer filter with charcoal and antiseptic agents including chlorohexidine (see column 2, lines 55-60). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have

Art Unit: 3771

provided Richardson's filter with an antiseptic agent as taught by Wen in order to more effectively protect the user from viruses and bacteria in the contaminated air. Furthermore, it appears as though the device disclosed by Richardson would perform equally well with the antiseptic layer.

Regarding claim 10, Wen does not disclose that the charcoal is sandwiched between multiple layers of antiseptic agents. However, absent a critical teaching and/or a showing of unexpected results from having a charcoal layer sandwiched between the antiseptic layers, Examiner contends it would have been an obvious design consideration to one of ordinary skill in the art at the time the invention was made to have used two antiseptic layers surrounding a charcoal layer in the multilayer filter disclosed by the modified Richardson reference in order to use multiple antiseptic agents for example or for more effective protection against viruses and bacteria. Furthermore, it appears as though the device disclosed by Richardson and Wen would perform equally well with the antiseptic layers sandwiching the charcoal layer.

Regarding claim 13, Richardson does not disclose the particle sizes filtered by the filter. However, the limitation "greater than 2 microns" includes macroparticles that would inherently be filtered out by the filter of Richardson (i.e., large dust). In any case, Wen discloses that the filter filters out particles in excess of 0.3 microns (column 5, line 60), which overlaps the claimed range of greater than 2 microns. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have designed the filter of Richardson to filter out particles greater than 2 microns in order to prevent contaminants from being breathed in by the user.

Art Unit: 3771

Claims 15 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Richardson and Roy as applied to claims 1, 6, 8, 12, 16, 18-20, 23, 27, and 28 above, and further in view of Courtney (US 4,981,134). Richardson does not disclose the valve as being embedded in the filter. However, Courtney discloses a filter assembly for a face mask that includes an exhalation valve (7) embedded in the filter assembly (see Figure 1). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used a filter assembly as taught by Courtney in the mask of Richardson in order to allow the valve and filter to both be easily replaced as needed.

Response to Arguments

Applicant's arguments with respect to claims 1-29 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KRISTEN C. MATTER whose telephone number is (571)272-5270. The examiner can normally be reached on Monday - Friday 9-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Justine Yu can be reached on (571) 272-4835. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3771

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kristen C. Matter/
Examiner, Art Unit 3771

/Justine R Yu/
Supervisory Patent Examiner, Art Unit 3771